



Data-Driven Drafting

Using Digital Tools to Balance the Rochester
Draft in *Cavemen: The Quest for Fire*

Dan Cassar

@maltezefalkon

GAME DEVELOPERS CONFERENCE®

MOSCONE CENTER · SAN FRANCISCO, CA

MARCH 2-6, 2015 · EXPO: MARCH 4-6, 2015







7 WONDERS

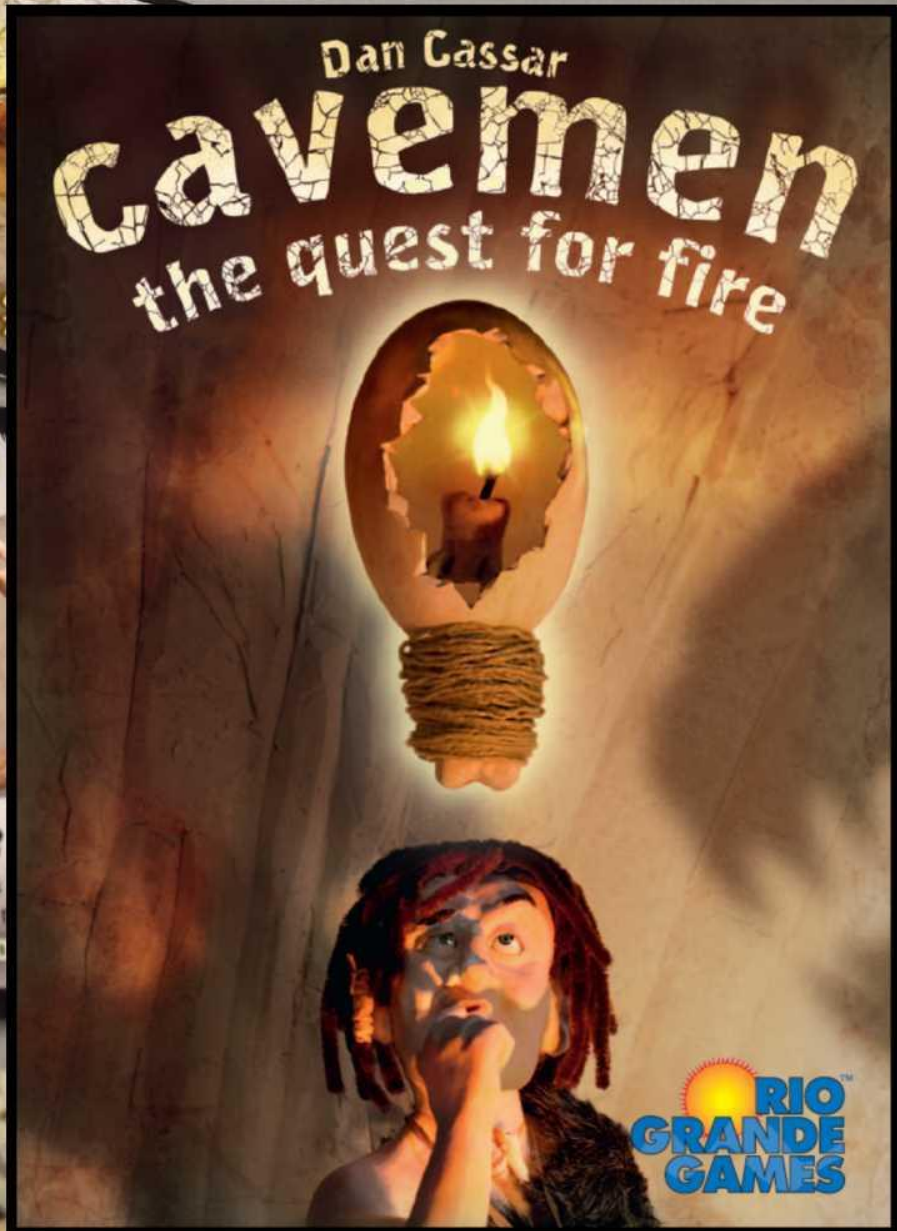


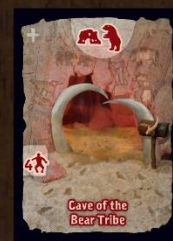
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12+ 
30' 

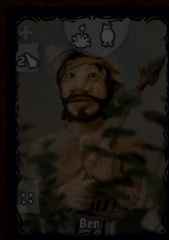
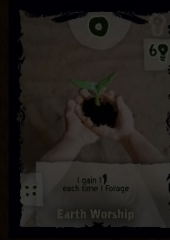
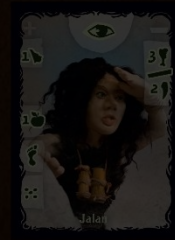
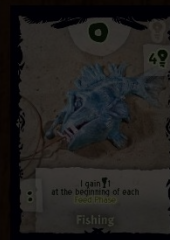
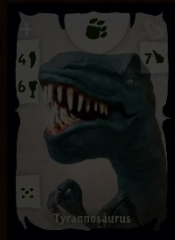
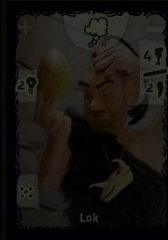
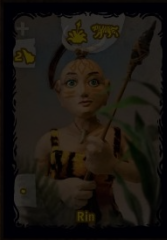
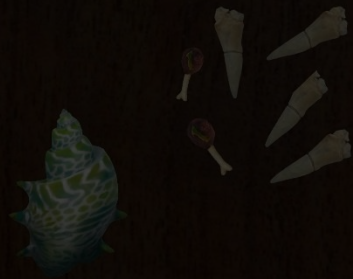


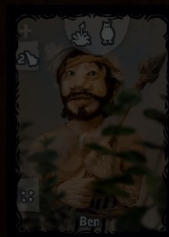
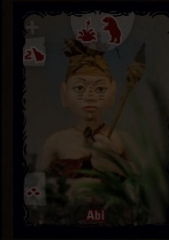
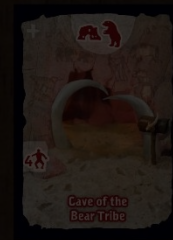
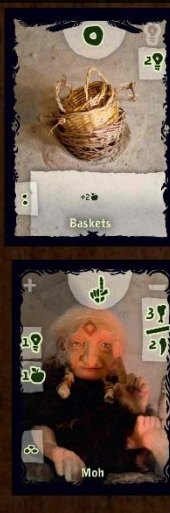
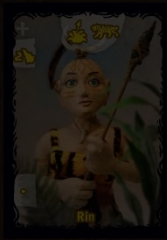
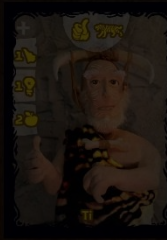
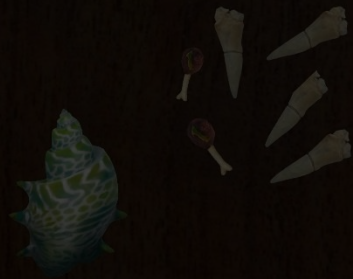


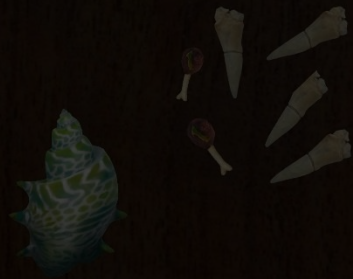


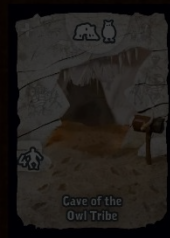
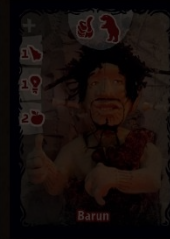
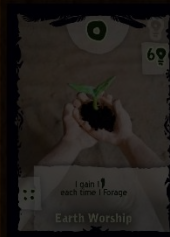
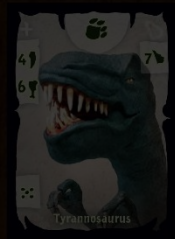
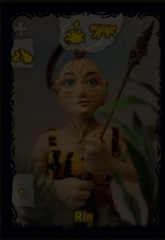
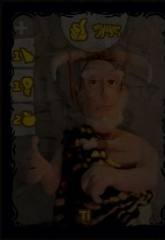
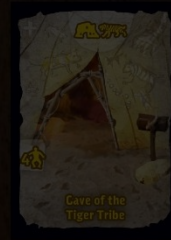


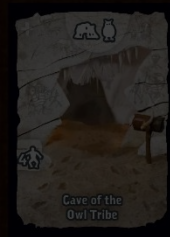
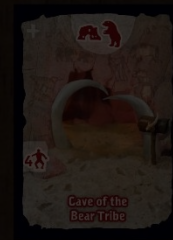
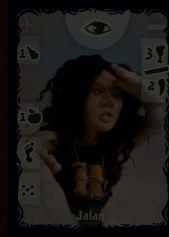
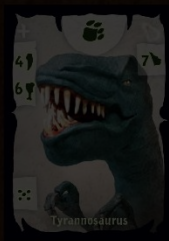
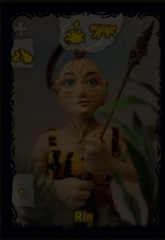
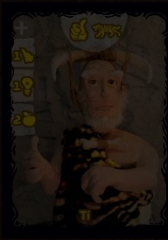
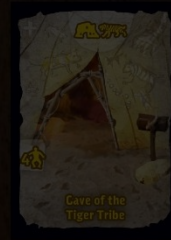


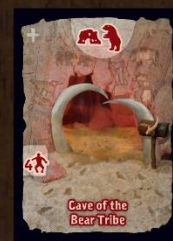












Player 1

1. Draw Phase

Draw cards to fill the card pool



5. Discard Phase

Discard cards from the Card Pool until 3 remain

Player 2



Card Pool



2. Conch Phase

Bid Teeth for control of the Conch



3. Feed Phase

Pay Food to feed the Tribe

4. Action Phase

Recruit, Hunt, Invent, Explore or Forage



Player 1

1. Draw Phase

Draw cards to fill the card pool

Deck

Discard Pile

5. Discard Phase

Discard cards from the Card Pool until 3 remain

Player 2

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Card Pool

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Draw cards to fill the card pool

Deck

Discard Pile

Card Pool

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Player 2

2. Conch Phase

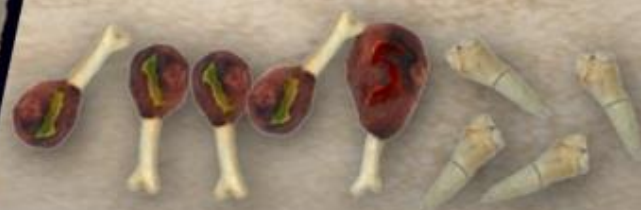
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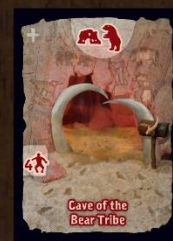
Recruit, Hunt, Invent, Explore or Forage

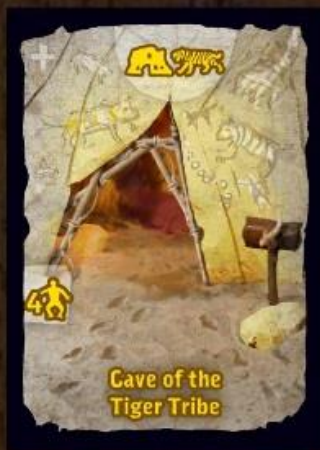
5. Discard Phase

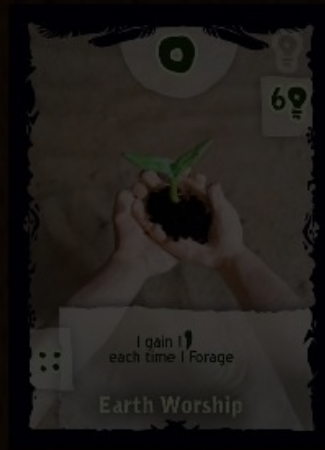
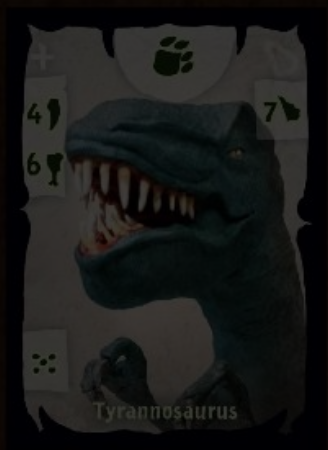
Discard cards from the Card Pool until 3 remain

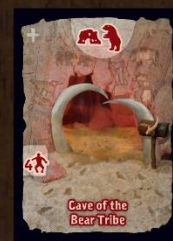
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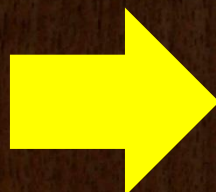




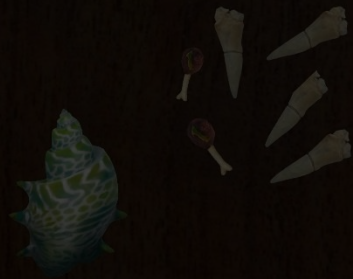


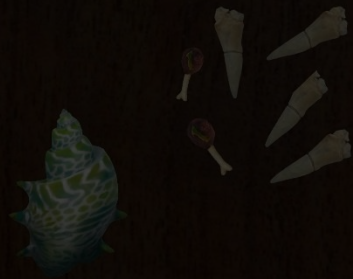


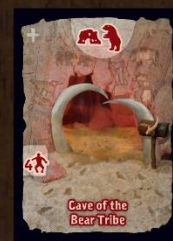


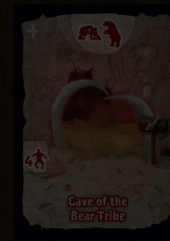
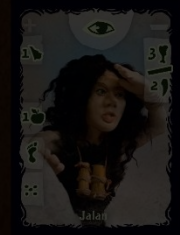
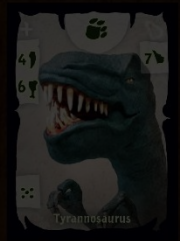
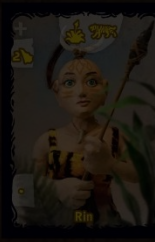
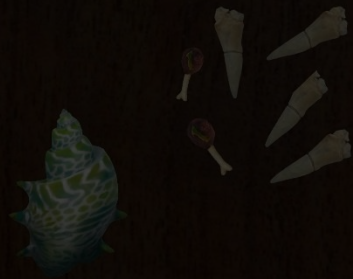


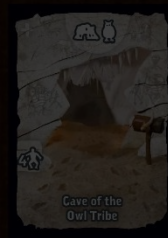
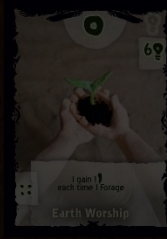
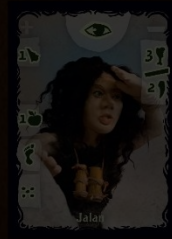
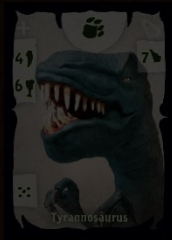
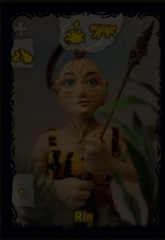
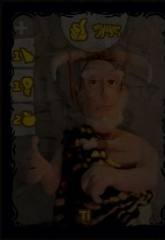
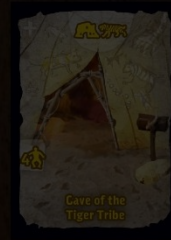


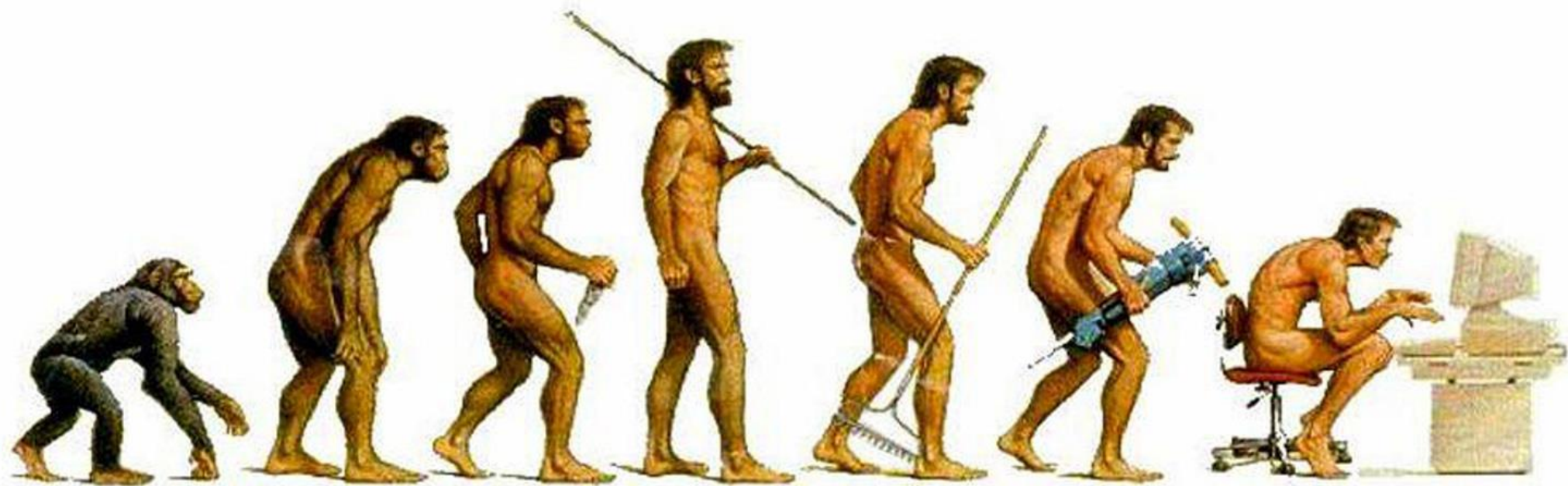












***** COMMODORE 64 BASIC V2 *****

64K RAM SYSTEM 38911 BASIC BYTES FREE

READY.

10 PRINT "HELLO WORLD!"

RUN

HELLO WORLD!

READY.

20 PRINT "THIS IS MY FIRST"

30 PRINT "BASIC PROGRAM"

RUN

HELLO WORLD!

THIS IS MY FIRST

BASIC PROGRAM

READY.

</card>

<card ID="77">

<name>Divine Lineage</name>

<class>Invention</class>

<color>E</color>

<text>My teeth count double during the Conch Phase.</text>

<InventRequired>6</InventRequired>

<InventionType>Rule-Changer</InventionType>

<PhaseEffective>Conch</PhaseEffective>

<RelevantStrategy>Inventor</RelevantStrategy>

</card>

<card ID="66">

<name>Division of Labor</name>

<class>Invention</class>

<color>E</color>

<text>[+2i] if I have a Hunter, an Elder and an Explorer in my



<InventRequired>2</InventRequired>

<InventionType>Invent-Booster</InventionType>

Dinosaur - Herbivore
Triceratops

7 



8  2 

#9

A

Caveman - Thinker
Curie

5 



2 


#55

C

Caveman - Medicine Man
Methuselah

3 



1  2 

#22

B

Invention
Huts

1 



2 

+2 Tribe.

#54

D

Dinosaur - Carnivore
Tyrannasaurus Rex

8 

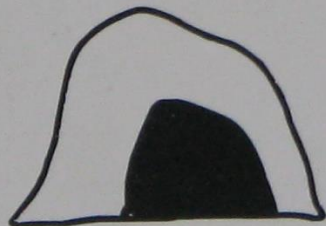


7  4 

Draw twice for casualties.

Cave
Cave

1 



2 

Can hide 1 caveman.

Event
Rampage



Caveman - Shaman
Beauvoir

3 



2 



Dealer



Cavemen 448.xml



Cavemen by role | 3/2/2015 3:16:55 AM

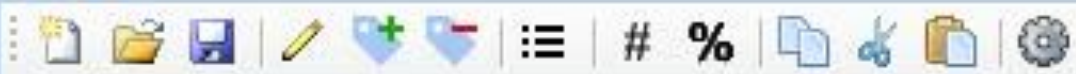
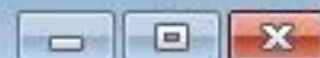
ID	name	HuntProvided	InventProvided	ForageProvided	ExploreProvided	RelevantStrategy
Role = Elder						
53	Bu		1	1		
54	Je		1	1		
55	Moh		1	1		
56	Kish		1	1		
57	Ab		1	1		
Role = Explorer						
28	Bolo	1		1	1	
29	Lea	1		1	1	
30	Vez	1		1	1	
31	Drak	1		1	1	
32	Jalan	1		1	1	
Role = Hunter						
33	Kaza	2				

[x] [class] = 'Caveman' And Is null or empty([Clan])

Edit Filter



Dealer



Cavemen 448.xml

Dinosaurs by cost 3/2/2015 3:16:55 AM

ID	name	color	MeatProvided	TeethProvided	RelevantStrategy
▼ HuntRequired = 1					
4	Diatryma	D	4	0	
2	Dire Wolf	B	2	1	
7	Protoceratops	B	4	0	
1	Megapnosaurus	A	4	0	
5	Wild Boar	E	4	0	
▼ HuntRequired = 2					
9	Ceratosaurus	D	6	0	
12	Chindesaurus	B	6	0	
11	Hypacrosaurus	A	6	0	
10	Iguanadon	E	6	0	
3	Smilodon	C	3	1	
▼ HuntRequired = 3					
16	Dilophosaurus	A	4	1	

X [class] = 'Dinosaur'

Edit Filter



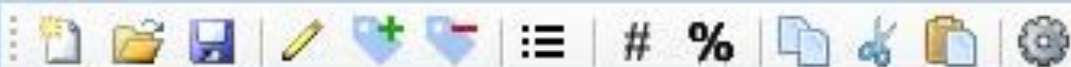
Cavemen 448.xml ✕

Inventions by cost ▾ | 3/2/2015 3:16:55 AM ▾

name	text	InventionType	ActionAffected	StatAffected	RoleAffected
▼ InventRequired = 1					
	Medicinal Herbs	Immediately after drawing for Casualties, I may choose to draw a new card and use the stone marker on this card instead of the first one drawn.	Hunt-Improver	Hunt	
	Stargazing	[+1i]	Invent-Booster	Invent	
I	Stone Axe	[+1h] per Hunter.	Hunt-Improver	Hunt	Hunter
▼ InventRequired = 2					
	Baskets	[+2a]	Domestic	Forage	
	Division of Labor	[+2i] if I have a Hunter, an Elder and an Explorer in my Tribe.	Invent-Booster	Invent	
		During the Action Phase, I may use an			

☒ [class] = 'Invention'

Edit Filter



Cavemen 448.xml ✕

Inventions by cost ▾ | 3/2/2015 3:16:55 AM ▾

	name	text	InventionType	ActionAffected	StatAffected	RoleAffected
	▼ InventRequired = 1					
	Medicinal Herbs	Immediately after drawing for Casualties, I may choose to draw a new card and use the stone marker on this card instead of the first one drawn.	Hunt-Improver	Hunt		
	Stargazing	[+1i]	Invent-Booster	Invent	Invent	
I	Stone Axe	[+1h] per Hunter.	Hunt-Improver	Hunt	Hunt	Hunter
	▼ InventRequired = 2					
	Baskets	[+2a]	Domestic	Forage	Forage	
	Division of Labor	[+2i] if I have a Hunter, an Elder and an Explorer in my Tribe.	Invent-Booster	Invent	Invent	
		During the Action Phase, I may use an				

☒ [class] = 'Invention'

Edit Filter



Kaza



+1 per
in my Tribe

Stone Axe

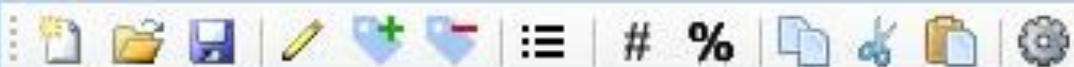




Dealer									
Cavemen 448.xml									
Inventions 3/2/2015 3:16:55 AM									
ID	name	text	InventReq...	RelevantSt...	ActionAffe...	StatAffe...	PhaseEffe...	RoleAffected	
58	Medicinal Herbs	Immediately after drawing for Casualties, I may choose to draw a new card and use the stone marker on this card instead of the first one drawn.	1	Inventor	Hunt		Action		
59	Stargazing	[+1i]	1	Inventor	Invent	Invent			
60	Stone Axe	[+1h] per Hunter.	1	Hunter	Hunt	Hunt		Hunter	
63	Baskets	[+2a]	2	Elder	Forage	Forage			
66	Division of Labor	[+2i] if I have a Hunter, an Elder and an Explorer in my Tribe.	2	Hunter	Invent	Invent			
61	Human Sacrifice	During the Action Phase, I may use an Action to Sacrifice. When doing so, I choose and discard one of my	2	Elder	Sacrifice		Action		
<input checked="" type="checkbox"/> [class] = 'Invention' And Not Is null or empty([RelevantStrategy])									

Edit Filter





Cavemen 208.xml ✕

Stargazing 1/25/2009 8:42:21 PM

ID	InventRequired	name	text	TeethRequired	StatAffected	Mode	PhaseEffective	RoleAffected	RecruitProvided	Clan
66	1	Stargazing	[+1i]		Invent	Flat	Action			

✕ ☒ [class] = 'Invention' And [name] = 'Stargazing' ▼

Edit Filter



Once at the end of each
Feed Phase in which I did not
suffer Starvation, I may spend
6 ♡ to gain 3 ♡

Feast



Immediately after drawing for Casualties, I may choose to draw a new card and use the stone marker on this card instead of the first one drawn

Medicinal Herbs





```

<color>C</color>
</card>
- <card ID="2">
  <name>Dire Wolf</name>
  <class>Dinosaur</class>
  <MeatProvided>2</MeatProvided>
  <TeethProvided>1</TeethProvided>
  <HuntRequired>1</HuntRequired>
  <color>B</color>
</card>
- <card ID="77">
  <name>Divine Lineage</name>
  <class>Invention</class>
  <color>E</color>
  <text>My teeth count double during the Conch Phase.</text>
  <InventRequired>6</InventRequired>
  <InventionType>Rule-Changer</InventionType>
  <PhaseEffective>Conch</PhaseEffective>
  <RelevantStrategy>Inventor</RelevantStrategy>
</card>
- <card ID="66">
  <name>Division of Labor</name>
  <class>Invention</class>
  <color>E</color>
  <text>[+2i] if I have a Hunter, an Elder and an Explorer in my Tribe.
  <InventRequired>2</InventRequired>
  <InventionType>Invent-Booster</InventionType>
  <ActionAffected>Invent</ActionAffected>
  <StatAffected>Invent</StatAffected>
  <RelevantStrategy>Hunter</RelevantStrategy>
</card>
- <card ID="76">
  <name>Earth Worship</name>
  <class>Invention</class>
  <color>D</color>
  <text>I gain [1T] each time I Forage.</text>
  <InventRequired>6</InventRequired>
  <InventionType>Tooth-Gainer</InventionType>
  <ActionAffected>Forage</ActionAffected>
  <PhaseEffective>Action</PhaseEffective>
  <RelevantStrategy>Elder</RelevantStrategy>
</card>
- <card ID="53">
  <name>Bu</name>
  <class>Caveman</class>
  <color>A</color>
  <ForageProvided>1</ForageProvided>
  <MeatRequired>3</MeatRequired>
  <TeethRequired>2</TeethRequired>
  <Role>Elder</Role>
  <InventProvided>1</InventProvided>
</card>
- <card ID="54">
  <name>Je</name>
  <class>Caveman</class>
  <color>B</color>
  <ForageProvided>1</ForageProvided>
  <MeatRequired>2</MeatRequired>

```



Dealer

Cavemen 448.xml

Monday, March 02, 2015 3:16:55 AM

ID	name	class	color	Role	text	HuntPr...	InventPr...	ForagePr...	Explore...	Tribe...	HuntRe...	MeatRequ...	TeethR...	MeatPr...	TeethProvi...	InventReq...
46	Bato	Caveman	A	Thinker			2						4	2		
49	Kon	Caveman	B	Thinker			2						4	2		
50	Bura	Caveman	C	Thinker			2						4	2		
51	Needha	Caveman	D	Thinker			2						4	2		
52	Lok	Caveman	E	Thinker			2						4	2		
92	Rin	Caveman	A	Hunter		2										
87	Ti	Caveman	A	Leader		1	1	2								
93	Gar	Caveman	B	Hunter		2										
88	Wof	Caveman	A	Leader		1	1	2								
25	Allosaurus	Dinosaur	C								6		4		3	
18	Ankylosaurus	Dinosaur	D								5		4		2	
26	Brachiosaurus	Dinosaur	D								7		10		2	
9	Ceratops	Dinosaur	D								2		6		0	
12	Chondrosaurus	Dinosaur	B								2		6		0	
20	Cryolophosaurus	Dinosaur	A								5		4		2	
4	Dactylina	Dinosaur	D								1		4		0	
16	Dilophosaurus	Dinosaur	A								3		4		1	
13	Dinofelis	Dinosaur	C								3		4		1	
2	Dire Wolf	Dinosaur	B								1		2		1	
14	Eobasiliscus	Dinosaur	D								4		6		1	
11	Hypacrosaurus	Dinosaur	A								2		6		0	
15	Ichthyosaurus	Dinosaur	E								3		4		1	
10	Iguanodon	Dinosaur	E								2		6		0	
7	Protoceratops	Dinosaur	B								1		4		0	
8	Pterosaur	Dinosaur	C								4		3		2	
3	Smilodon	Dinosaur	C								2		3		1	
24	Stegosaurus	Dinosaur	E								6		5		2	
11	T-Rex	Dinosaur	A								4		4		1	

